DOCUMENT RESUME

ED 189 050 SP 016 224

AUTHOR Evertson, Carolyn M.: And Others
TITLE The Junior High Classroom Organization Study: Summary of Training Procedures and Methodology. R&D Rep. No. 6101.
INSTITUTION Texas Univ., Austin. Research and Development Center for Teacher Education.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Feb 80
CONTRACT OB-NIE-G-80-0116
NOTE 54p.: For related documents see SP 016 274-275 and SP 016 279.
AVAILABLE FROM Communication Services, Research and Development Center for Teacher Education, Education Annex 3.203, University of Texas at Austin, Austin, TX 78712.

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Academic Achievement: *Class Organization: *Classroom Observation Techniques: *Classroom Techniques: English Instruction: Junior High Schools: *Lesson Observation Criteria: Secondary School Mathematics: Secondary School Teachers: *Teacher Evaluation: Teaching Methods

ABSTRACT

This report presents an overview of the history of the Junior High Classroom Organization Study, designed to answer questions concerning effective instruction in junior high school English and mathematics classes. Nineteen trained observers were sent to 52 classrooms in the Austin (Texas) Independent School District. Observers kept written records of classroom events, student concentration/interest ratings, teacher competency ratings, and time logs. Other data used in this report include student ratings of teachers, achievement tests, and teacher interviews and questionnaires. Focusing on classroom organization and management of time, materials, and student teacher contact, the study presented data on specific teacher behavior that produced greater 1) student concentration, 2) exposure to content, and 3) achievement. Data analysis, reference notes, and appendices follow the report. (CJ)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED189050

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

The Junior High Classroom Organization Study: Summary of Training Procedures and Methodology

Carolyn M. Evertson

Edmund T. Emmer

Barbara S. Clements

R&D Center for Teacher Education
The University of Texas at Austin

(R&D Rep. No. 6101)

Research and Development Center for Teacher Education
The University of Texas at Austin

February, 1980

SP016224

This study was supported in part by the National Institute of Education under Contract OB-NIE-G-80-0116, The Classroom Organization and Effective Teaching Project, The Research and Development Center for Teacher Education, The University of Texas at Austin. The opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education and no official endorsement by that office should be inferred. Requests for reprints should be addressed to Communication Services, R&D Center for Teacher Education, Education Annex 3.203, The University of Texas at Austin, Austin, Texas 78712.

JUL 3 1980

Acknowledgements

The conceptualization, planning, and execution of a major study such as the Junior High Classroom Organization Study requires the work and commitment of many people. Before citing individuals, we wish to extend our gratitude to two organizations whose support made this work possible: The Research and Development Center for Teacher Education, Oliver H. Bown, Director, and the Austin Independent School District. School district personnel who assisted us in many ways were Freda M. Holley, Coordinator of Research and Evaluation; Lawrence Buford, Director of Secondary Education; James Patterson and Maud Sims, Assistant Directors of Secondary Education; Margaret Ruska, Language Arts Supervisor; and Elgin Schilhab, Mathematics Supervisor.

Program staff members who made contributions to the design and completion of the study were Barbara Clements, who trained observers and coordinated data collection, and Betty Ancheta, who prepared materials and organized staff participation. The following people were responsible for data collection during the full school year: Barbara Clements, Alice Haynes, Nadene Hudson, Julie Sanford, and Patti Shields. They were assisted during the first three weeks of the study be the following observers: Chris Baker, Jane Bowles, Phyllis Brown, Vicki Calderola, David Campbell, Joan Dodds, Susan Guinn, Dean Johnston, Matthew Lee, and Eddie Orum. Data analyses were performed by Jeanne Martin, Donald Veldman, Betsy Galligan, and Mike Kerker. Barbara Clements, Murray Worsham, and Julie Sanford were involved in report preparation. Randall Hickman and Ellen Williams also provided help during the data analysis and reduction stages.

The important task of organizing and checking data was performed by Aimee Brodeur, Helen Ross, Sandi Medeiros, and Patty Martinez. Narrative typing was done by Rosemary Brant, Cheshire Calhoun, Candace Grigsby, Diana Hadley, Randall Hickman, and Kathy Woolum. Manuscript and materials preparation was also done by Betty Ancheta, Carol Culp, Susan Smith, and Sheila Haber-Garsombke.

Most importantly, we also wish to thank the principals of the eleven junior high schools and the 51 teachers who allowed us to learn from them.

THE JUNIOR HIGH CLASSROOM ORGANIZATION STUDY:

Summary of Training Procedures and Methodology

Abstract

The Junior High Classroom Organization Study was part of a collaborative effort between The University of Texas Research and Development Center for Teacher Education, the Austin Independent School District (AISD), and the National Institute of Education. This study was designed to answer questions about effective instruction in junior high school English and mathematics classes by focusing on classroom organization and management, particularly those steps that are important at the beginning of the school year. Much of the methodology and instrumentation for this study came from a study done in third-grade classes in low SES schools done in 1977-78 (Evertson, Anderson, Emmer, & Clements, Note 1). During the school year 1978-79, data were collected to address these questions, and analyses of the data are in progress. This report presents an overview of the history of the study and briefly describes the data collection activities. More complete information on the study can be found in Evertson, Emmer, and Clements (Note 2).

Background

Much work done at the R&D Center over the last few years by the Correlates of Effective Teaching Program (COET) has focused on classroom processes which related to achievement in the basic skill areas in elementary and junior high schools. This interest and general research background led COET staff and personnel at the AISD Offices of Developmental Programs and Research and Evaluation to jointly tackle school

problems of low SES achievement. Initial planning efforts produced a series of research reviews on effective teaching in low SES elementary schools. (Other Center programs were also involved in other components.) The reviews included research done in Austin schools by the Center, as well as work by researchers in other parts of the country. They covered the topics of in-service, classroom structure, teaching methods, teacher-student interaction, and the use of instructional time. Each was produced in two forms: a 15-20 page paper, and a 5-6 page version that summarized the highlights of the research. These reviews were disseminated in the AISD by the Center and by the AISD Office of Research and Evaluation (ORE) with whom the Center had worked closely in preparing the reviews. The papers were part of one of ORE's priority efforts that year, which was the gathering of information for district personnel about research findings on instruction of low SES students. ORE prepared summaries for other topics, and the R&D Center prepared the reviews of research on classroom processes.

One result of these summaries was that R&D Center staff met with AISD administrators in the Division of Instruction and began to discuss how the Center researchers might be of further use to practitioners in the District. These contacts resulted in a list of research questions about effective teaching in elementary schools, especially low SES schools, which were of high concern to the staff of the Division of Instruction.

One set of questions on this list was about classroom organization and management. Since much past R&D research had yielded conclusions that these were extremely important facets of teaching, especially in low SES schools, it was decided that this topic could be most effectively

researched by persons at the Center. Indeed, all of the research summaries prepared by the Center, and much original work done here, had expressed the importance of effective organization and management techniques which resulted in greater student time in academic tasks and greater involvement with and exposure to academic content.

However, very little was known about what specific teacher behaviors result in "better" organization. In particular, little information was available about what factors are most important in establishing a smooth-running classroom at the beginning of the year. There is a wealth of general advice that ranges from "Don't smile until Christmas" or "Have your room organized and ready on the first day of school." However, it was felt that such general statements were not sufficient to help a teacher learn effective organization, especially when s/he has never taught before. General principles of instruction are useful, but they must be illustrated and supported by concrete examples if they are to be internalized by new and inexperienced teachers.

Therefore, the Elementary School Classroom Organization Study was designed to answer some very specific questions about establishing and maintaining classroom organization that results in greater student time on task, exposure to content, and achievement. The ultimate purpose of the study was to produce knowledge that could be expressed in terms of specific teacher behaviors that produce effective management of time, instructional materials, contacts between the teacher and students, and the external constraints imposed on teachers. These topics reflected specific district concerns. The study also yielded new ways of conceptualizing classroom organization.

After several informal discussions with AISD staff, a proposal was sent to the Director of Elementary Education which presented some objectives which would be addressed by the study. The response to this proposal was very positive, and it was agreed to conduct a study during the school year 1977-78, to focus on organization and management in third-grade classes in schools with large proportions of students from low SES backgrounds.

Principals in 10 Title I and near Title I schools were contacted and the proposed study was discussed with them. Generally, the reaction of the principals was quite favorable, and they arranged for a meeting with their third-grade teachers during the week before school. After meeting with faculties, 29 teachers in eight schools agreed to participate in the study. Twenty-seven teachers continued in the study until the end of the school year.

Analyses done on the third-grade data showed that management capability during the first three weeks of school was a good predictor of management capability during the rest of the year. It was found that effective managers differed significantly from less effective managers in many beginning- and end-of-year management activities and behaviors. Data used to reach these decisions were student on-task behaviors, reader ratings based on careful analysis of narrative data, observers' end-of-year ratings, and class mean residual gain on the California Achievement Tests.

Based on the positive findings from the Elementary School Classroom Organization Study, the decision was made to study junior high school classes to see if similar results could be found. With the school district's cooperation, a similar study was set up to observe junior high

school English and mathematics teachers in all 11 of the Austin junior high schools extensively in the first three weeks (including the first day of school) and approximately once every three weeks thereafter. (A time line of the study is included in Appendix A.) The goal, again, was to answer questions about the establishment and maintenance of effective classroom management.

Initial Contacts with District Administrators and Teachers

After receiving the approval and support of the Austin Independent School District's Director of Secondary Education and of the Office of Research and Evaluation, initial contacts with nine of the 11 junior high school building principals were made in the spring of 1978. The other two principals and schools were contacted during late summer. During meetings with the building principals, the purpose and nature of the Junior High Classroom Organization Study was explained and the approval of each building principal was received. The representative from the research project then requested that the principal call a meeting of all English and mathematics teachers so that the project could be explained to them and so that their participation could be sought. Subsequently, during May of 1978, a representative from the project met with each group of faculty in their building to discuss the project and to answer questions regarding it. In each case, the teacher's participation was requested, and teachers were allowed to sign up for the study, which was to be conducted commencing the following fall. Approximately three-fourths of the teachers indicated a willingness to participate, and a number of those who did not volunteer indicated that it was because they were not planning to teach in that building the following year. Thus, the available sample for selection of teachers was reasonably represen-

tative of the total population. Obviously, of course, there are some volunteer effects, although they should not be too great, considering the high acceptance rate.

In order to include new teachers into the study, a representative from the project arranged to speak to new teachers during the in-service days in the week prior to the beginning of the year. Most of these teachers were present at the meetings, and approximately one-half indicated willingness to participate, even though it was their entree into teaching.

Final selection of the teachers from the available pool allowed for representation from each of the 11 schools in the district and roughly proportional representation on the basis of years of teaching experience. In addition, 17 of the teachers who had volunteered had also participated in a large-scale process-product research study three years prior to this study. All of these teachers were included in the final sample in order to test hypotheses regarding stability of teaching behaviors and effects over time, as well as to study changes in various aspects of these teachers' instructional characteristics. Within the constraints imposed by the preceding factors, random selection was used to obtain the final sample.

Class and time schedules were obtained from the schools for use in observer scheduling. After the selection of teachers was made, a letter was sent to the 53 chosen teachers informing them of the two periods selected to be observed, the names of the observers, and the schedule of observers during the first week of school. Principals of the 11 schools were sent a letter informing them of the teachers and class periods that would be participating in the study. Letters were also sent to teachers

not chosen to be participants thanking them for their willingness and interest. The teachers and principals in the study received the schedule for the second and third weeks during the latter part of the first week of school.

Observer Selection and Training

Nineteen observers participated in the original phase of data collection. Most of the observers were selected from a list of graduate students in the Educational Psychology and Curriculum and Instruction departments at The University of Texas at Austin. One of the requirements for selection was that they have classroom teaching experience. Some of the observers were former teachers recruited into the project, some were observers in the third-grade classroom organization study, and others were R&D Center staff members. All observers underwent a week's training which emphasized the nature of junior high classrooms and the types of teacher and student behaviors which were important to note.

Training began a week before the beginning of school. Observers met with R&D staff members for approximately 25 hours of training. During the training sessions the following topics were discussed: preliminary results from the Elementary School Classroom Organization Study, concepts and terms used in the study, techniques for writing narratives, noting time intervals, use of the forms (Student Engagement Rating, Time Log, and Component Rating), procedures for handing in materials, and how to be an unobtrusive observer. Each of the forms was explained in detail and then practiced, using videotaped observations of junior high or upper-level elementary classrooms. These videotapes also were used for practice in writing narratives. The practice forms were handed in and checked by staff members, usually overnight, and feedback was given to

observers during the next session. Copies of desirable forms were provided so that the observers could compare their own forms with what was expected of them. Observer practice forms were used to check reliability also. Ample opportunity was given for answering questions and open-ended discussions to be sure that observers felt comfortable with the forms and understood the rationale for using them.

Among the materials provided the observers was a notebook for use during the observations (Evertson, Emmer, & Clements, Note 3). It contained all the materials observers would need for conducting and completing their observations. The notebook was divided into five parts: narratives, time logs, student engagement ratings, component ratings, and miscellaneous. Each of the first four sections included a set of guidelines, a sample filled-in form and blank copies of the forms. Observers were instructed that additional copies of each form could be obtained as needed. Each form had a standardized ID field.

The miscellaneous section included a map of the city with the locations of the junior high schools marked and instructions on how to get to each one; general guidelines for the observers; a list of standard terms used in the study; a list of teachers, observers and code numbers; and other bookkeeping items such as mileage forms. Observers were also provided a tape recorder and blank tapes for recording the narratives. At the end of the training sessions, observers were given their schedules for the following weeks.

Classroom Observations in the First Three Weeks

Each of the original 52 participating teachers was seen about 10 or 11 times during the first three weeks of school yielding over 575 observation hours. One class of each teacher was seen on the first, second,

and fourth days of the first week of school. Another class was observed on the third and fifth days of that week. Thereafter, each of the two classes was seen about equally. Each teacher was seen by two different observers.

The observation sessions in the first three weeks resulted in four types of information. Samples of the forms are included in Appendix B of this report.

I. THE NARRATIVE RECORD

While in the classroom, the observers maintained a written record of classroom events, with a particular focus on organization and management. The training manual, including guideline questions, was used for reference purposes while the observer was recording his/her comments in greater detail following the observation. The narrative technique, used in the Third-grade Classroom Organization Study, allows information to be gathered about a wide array of classroom events. The main areas covered in the narratives or in comments following the narratives were: leadership in controlling classroom behavior, instructional leadership, instructional systems in operation, student concerns, physical arrangement of the room, constraints on the teacher, personal characteristics of the teacher, visible students, and peer interactions.

Following the observation, each observer recorded the narrative on tape and made comments at the end, if necessary. It was found that by doing this, far more detail could be recalled than could be written during the observation thus providing more detailed information. Narratives of each observer were read during data collection by R&D Center staff members in order to maintain a high level of quality in the descriptions. Observers were then given feedback on areas which needed

more attention. A typical specimen record length is eight to ten typewritten pages for a 1-hour observation.

II. STUDENT ENGAGEMENT RATINGS

Since short-term outcomes of student time-on-task were important to this study, the observers filled out a set of ratings which classified students in each of eight categories of engagement. The first count was taken at a randomly selected time within the first 10 minutes of the class period and each 15 minutes thereafter. Students were classified as follows:

a. Definitely on-task academic. The student was working on an academic assignment or receiving an academic presentation and very clearly paying attention.

b. Probably on-task academic. The student was supposed to be working on an academic assignment or attending to an academic presentation but could not confidently be said to be attending; however, he was not definitely off-task either (e.g., staring into space as if thinking about the task).

c. Definitely on-task procedural. The student was performing a procedure or routine which was preparatory to beginning an academic activity, or was necessary for finishing it (e.g., passing in papers for a transition).

d. Probably on-task procedural. The student was probably engaged in some procedural activity, but was not clearly doing so; however, was not definitely off-task either (e.g., moving across the room, probably to pick up materials).

e. Off-task sanctioned. The student was not performing an academic or procedural task, but was not misbehaving (e.g., going to the waste-basket).

f. Off-task unsanctioned. The student was involved in an undesirable activity or not involved in a desirable activity (e.g., talking when this was not allowed or clearly not doing an assignment).

g. Dead time. The student did not have anything specific he was supposed to be doing (e.g., waiting for the rest of the students to finish taking a test).

h. Can't tell. When the observer could not confidently classify a student as belonging to one of the above categories or when the student could not be seen, he or she was counted here.

These forms were also coded to reflect the format of the activity in the classroom (e.g., teacher presentation to class, academic, or individual activities), who was in charge (e.g., teacher in charge, other adult present, or student teacher in charge, teacher present), and what the topic was.

III. COMPONENT RATINGS

Although the narrative records were the richest source of data regarding the teachers' organizational and management behaviors, a systematic set of counts and ratings of specific characteristics was completed after each observation in order to provide a common set of measures for each teacher. Therefore, after each observation, a set of 44 ratings was completed. (During the first and second week of school, only 36 variables were rated. It was felt that additional information was needed regarding the teacher's management of student behavior, thus an additional eight ratings were added after the second week.)

This assessment system had been used in the Elementary School Classroom Organization Study as a means of identifying global areas that differentiate various levels of capability in organizing and structuring classroom activities. Also, the use of the assessment system provided a way to relate this research study to preservice teacher education, since an earlier version of the assessment system had been developed by a committee of faculty from The University of Texas at Austin, including one member of the AISD Project staff. The system was used on a pilot basis in the elementary teacher education program at The University of Texas; research on this system will allow these preservice criteria to be validated against teachers in the field. Several alterations and additions were made to the original form to reflect the different age levels being observed and the different types of information desired. The areas focused on were: lesson design; locating, constructing, using materials; presenting information; developing attitudes; managing pupil behavior; methods of handling disruptive behavior; interacting effectively; classroom climate; amount of inappropriate behavior; and teacher's reaction to inappropriate behavior.

IV. TIME LOGS

Time use was another important aspect of this study. It was felt that an organized teacher would have maximum time on academic instruction and very little time spent in transitions between activities and different subject matter, and little or no dead time, that is, time in which students had no assigned activity. On the narrative form, there was space to the left of the numbered lines to be used to note times such as the beginning and end of transitions, dead time, and interruptions.

Narrative

Teacher # XX School # XX Subject # XX Period XX Observer # XX

Date 8/30/79 # of Students Present 19 Page 1 of 8

Start: 8:00

BEG	END	ST. ENG	
T 8:05			1. The students have come in early and are
			2. sitting in their seats talking quietly.
			3. (Bell at 8:05) Some students talk to
	T 8:06		4. teacher; three others start working and
			5. reading with aide. Students know what to
			6. do already and get busy working at their
			7. seats on reading activities.

These times were inserted into the taped narrative to provide a feel for the flow of events in the classroom when the narratives are read. In addition, a time log for each observation was completed by the observer. On this form the observer noted the start time, stop time, number of students involved, and a brief description of each activity in the classroom (including transitions and dead time). The beginning time on the time log was the bell beginning class and the end time was the bell ending the class, with occasionally some notes concerning how time was spent before and after class if it was relevant. This time log enables the reader to follow the schedule throughout the class period for all of the students in the class. From this time log, one can see how much time was spent on academic instruction versus time in transitions or other non-academic activities.

Summary

To summarize, by the end of the first three weeks, each teacher had been observed at least nine times in two of his/her 50 to 60-minute

classes, and each observation resulted in a detailed narrative, student engagement ratings, component ratings, and a time log. These data represent an intensive examination of the beginning of school in English and math classes in Junior High School.

Other Data Collected from Observers After the First Three Weeks

As a result of the observation schedule, each observer saw six teachers about five times each, and each teacher was seen by at least two observers. In order to get additional impressions and information, each observer provided several summary ratings and descriptions of each teacher s/he observed. The observers completed a Summary Component Rating form (using essentially the same form used for each observation) in which they assessed the teachers/classrooms according to their overall impression. The rating was based on a scale of 1 to 5 (1 = not at all characteristic of the teacher, 3 = moderately characteristic of the teacher, and 5 = highly characteristic of the teacher). In addition, observers answered six questions dealing with general impressions about the organization of the classroom on each of his/her teachers and two general questions regarding advice to new teachers. Finally observers provided a copy of each teacher's rules, a drawing of the room arrangement and a copy of the two observed classes' seating charts. These items served as an aid to the observers who saw the teachers from Week 5 through the end of the school year.

Classroom Observations After the First Three Weeks

After the first three weeks of school, observations stopped for one week. During this time, plans were made for the scheduling of observations for the rest of the school year. Five observers from the original group of 19, including the staff member in charge of training and manag-

ing the study, were chosen to continue observing for the rest of the year. Observers were chosen who possessed good narrative-writing skills and good teacher rapport. Of the original 53 teachers in the study, 51 continued to participate during the rest of the year. The other two teachers transferred out of the district. A new system of scheduling was developed as well as a system for contacting teachers about the scheduling. Using the school district calendar, the remainder of the school year was divided into eight three-week cycles. Short school weeks, due to holidays or teacher curriculum days, were used for make-up observations. Each of the five observers was assigned eight to 11 teachers to observe, and both class periods of each teacher were scheduled to be seen once every cycle, or approximately once every three weeks. Teachers were sent a list of scheduled observations for their school during the last week of the previous cycle. Basically, the teacher was seen during the same week of each cycle (i.e., first week of the cycle, etc.) although the day of the week would be different. A rotating schedule was set up to incorporate observers' scheduling demands, but an attempt was made to see all teachers on a variety of days of the week. Any changes in the scheduling were made through the office, and teachers were contacted when observers could not make it to their classes. For the most part, make-up observations were rescheduled as soon as possible. Teachers were requested to inform the office of any changes in school schedules so that observers could be notified and rescheduling done. After the Christmas holidays the schedule was changed somewhat due to increased work time of one observer. The observations from the last week of September to the end of school resulted in an additional 850 hours of observations, or approximately 17 one-hour observations per teacher.

The observations were resumed after the week-long break. The purpose of following each class through the year was to assess continuity or changes in organization, methods of instruction, teacher and pupil behavior, and short-term outcomes. No major changes were made in the forms or techniques used; therefore, each observation continued to consist of a narrative record, a set of student engagement ratings, a set of component ratings, and a time log. In addition, a system for checking observer reliability was established.

Reliability

During the three 3-week cycles prior to Christmas, each observer saw two teachers normally seen by another observer. A regular observation was done and all forms filled out. The component ratings and student engagement ratings were then checked against the summary component ratings and a sampling of student engagement ratings from the first three weeks. It was expected that student engagement ratings would not significantly vary from the first three weeks. Allowances were made for differences in activities in checking these ratings. On the component ratings, a check was made to see which dimensions had a variation of more than one point (on the scale of 1 to 5) from the summary ratings from the first three weeks, if the two previous observers agreed. These dimensions were then checked against the written observation to see if they were consistent with what was written. These dimensions were also discussed with the observer and attempts made to be sure that all observers understood the ratings and were rating them consistently. Reliability and scheduling were discussed with observers at regular meetings, held once every three weeks and called more often if needed.

After Christmas a new system was instituted. During each cycle, each observer saw a teacher with the regularly scheduled observer. Arrangements were made with the teachers in advance so that the observers could sit beside each other and have the same vantage point for taking student engagement ratings. The observers would agree at what time to do the ratings but they would not consult with each other while doing them. In addition to the narrative and student engagement ratings, observers also did the component ratings and time logs. The student engagement ratings were then compared to see if there was observer agreement. The component ratings were checked against each other and differences of more than one number were discussed with the observers and checked against the narratives. Changes were not made on any of these forms. Discussions were held in the regularly scheduled observer meetings to maintain reliability. Twenty-three such checks were conducted.

Spot checks were also done on the narratives to be sure that observers were providing the desired detail and coverage of all major points.

Contacts with Teachers

Additional contacts were made with the teachers during the remainder of the school year. Teachers were informed of the reasons for and scheduling of reliability observations and other bits of information via notes attached to observation schedules. In addition, a letter regarding achievement testing to be done and other end-of-school data collection activities was mailed to the teachers in February. Observers directly contacted teachers to set up convenient times for the achievement testing and interviews.

Other Data Collected

Student Rating of Teacher

During the last regularly scheduled observation of each class, observers administered a student rating form. The form was adapted from the Student Rating Scale of Instructors developed in 1973 by the Sequoia, California High School District (Stallings, Needels, & Stayrook, Note 4). The procedure took approximately 10 minutes of class time and the teacher was not present while the rating was given. Students were told that their answers would be kept confidential, that their teachers would receive only class percentages for each question after the end of the school year. The observer read aloud the 17 questions on the form and all of the five alternative answers. Students were instructed to choose the answer which best described how they felt about that class and that teacher. Questions on the form dealt with instructional and behavioral organization, as well as teacher style. Students, in general, were very cooperative and serious while doing this.

Achievement Tests

Achievement tests were developed to measure student learning and in a manner to assure both content validity and adequate reliability. The construction of the mathematics achievement test was based upon curriculum materials used in seventh-and-eighth grade math classrooms in the school district. The district-wide adopted textbook series for junior high math was examined and multiple-choice items were developed to reflect the areas of emphasis in these texts. Items on the preliminary test form were submitted to the Coordinator of Mathematics Instruction for the school district and feedback regarding the appropriateness of these items was incorporated into the test development activity. The

mathematics achievement test was divided into two subtests each of 20 minutes duration. The first covered mathematics computation including whole numbers, fractions, decimals, and percents. The second subtest covered mathematics concepts, applications and reasoning with items drawn from the areas of geometry, number theory, probability and statistics, verbal problems, integers, and other areas covered in the curriculum. The final test contained 80 items, with a number of both easy and difficult items in order to avoid ceiling and basement effects.

The English achievement test was constructed in a similar fashion. A preliminary form of the test was submitted to the District Coordinator for Language Arts Instruction and comments regarding the adequacy of item sampling were incorporated into the final form of the test. District-wide adopted textbooks for English instruction in seventh and eighth grades were consulted during the development of test items. An attempt was made to provide adequate representation of all areas of junior high English curriculum with the exception of that portion of the curriculum dealing with the interpretation of poetry and other forms of literature. The English test assessed other areas of primary emphasis in the district-wide curriculum. These involved the various areas of grammar, usage, and mechanics, including parts of speech, punctuation, capitalization, etc. In addition, several questions related to library reference use were included, since this is generally covered in the junior high curriculum. The final test consisted of four parts to be administered during a total testing time of 40 minutes. Items were chosen to represent all levels of difficulty. Thus, for example, the spelling test included a number of items at the third-grade difficulty level on up through hard-to-spell words from the eighth-grade text.

Both the English and the mathematics achievement tests were pilot tested in classrooms which were not participating in the regular observation study. The pilot testing indicated that the tests had good internal consistency reliability, both in the total score and in the subscale scores. Some items were modified as a result of the pilot testings and the mathematics test was shortened somewhat when it proved to be too long. The pilot test indicated that the English achievement test could be lengthened somewhat, so about 25% more items were added to each subtest.

The achievement test was administered during the two weeks following the last cycle of observations (the first two weeks of May). The observers gave the test to the classes they observed. In most cases, the teacher remained in the classroom during the achievement testing. The students recorded their answers to the test items on a mark-sense scoring sheet. Students were provided a test booklet, an answer sheet, a Number 2 pencil, and a piece of scratch paper (math only) during testing. No incidents were reported by observer-administrators that suggested that the conditions during testing would yield invalid information. High absence rates were reported in a few instances, so that follow-up testing was necessary. A test administrator visited six of the classrooms approximately one week after the original testing and tested those students present at that time who had been absent during the first test administration.

The achievement test data was used as one of the product criteria, after adjustment for initial achievement levels as measured by the CAT results from the preceding year.

Other Data Collected from Observers at the End of School

During the period from the fifth week of school to the end of school, each teacher was seen approximately 17 times. All but four teachers were seen at least once for a reliability observation.

Summary Component Rating

On this form the observers made a final assessment of the teachers/ classrooms according to their overall impressions just as was done after the first three weeks of school. Again, the rating was based on a scale of 1 to 5 (1 = not at all characteristic of the teacher and 5 = highly characteristic of the teacher). These ratings were compared to the Summary Component Ratings from the first three weeks, as well as to the ratings from throughout the year.

Observer Ratings of Teacher

In order to gather further information on the teachers not available through the Component Ratings, narratives, etc., the Observer Ratings of Teacher was created. This was a compilation of questions, many of which were selected from previous studies conducted by COET. The questions dealt with classroom arrangement and atmosphere, management techniques, teacher-student interactions, instructional techniques, and use of time. These served to give a general picture of the teacher. The form consisted of 303 questions and each observer filled out one on each of the regularly observed teachers. As a rough check on observer agreement, some observers from the first three weeks completed the ORT on teachers they had seen frequently enough to form a lasting impression.

Teacher Competency Checklist

The Evaluation of Teaching Program (EOT) was also involved in a project with the Austin Independent School District to systematically

evaluate the new district-wide evaluation system put into effect this year. A form and a series of behavioral descriptors were developed to evaluate new teachers and other teachers up for evaluation on a three-year basis. As a part of the Collaborative School-Based Project, our observers were asked to fill out a shortened version of this checklist for the purpose of comparison to certain teachers' evaluations done by their principals. Observers were to rate their regularly observed teachers on a scale of 1 to 5 in the basic areas of personal qualities, instructional skills, classroom management skills, expertise in basic skills and subject area, and interpersonal skills (a total of 52 variables). The behavioral descriptors used by principals to fill out the forms were also used by the observers to fill out the ratings. Based on performance information, observers were to estimate the teacher's effectiveness in meeting each of the criteria. The rating scale was designed as follows: 5 = a superior performance level (expected to include only about 5% of the professionals); 3 = the normally expected level of performance (including approximately 50-70% of the professionals); and 1 = an unsatisfactory performance level, one which must be improved (expected to include only about 5% of the professionals). In addition observers were to rate on a scale of 1 to 3 as to how confident they felt in rating the teacher on each particular item, based on sufficient information (3 = very confident in making the rating; 1 = not very confident in making the rating, insufficient information to be sure).

Teacher Interviews and Questionnaire

While the observations are a rich source of information, there was much information that could not be obtained through observations, especially about planning, decision-making, and constraints affecting the

teacher. Therefore, each teacher completed an extensive questionnaire and was interviewed at the end of the school year.

Interviews. In the middle of October, three math and three English teachers, identified as effective managers, were chosen to be interviewed for the purpose of obtaining information on beginning-of-school planning and activities. In addition, each teacher was asked to describe the students in the two classes we were observing and make predictions for their academic achievement. It was hoped that behavioral problems described by the teachers would show up in the narratives, and specific ways of handling these problems would be observed and documented.

During the last month of the school year, all 51 teachers were interviewed to obtain information on planning for the beginning of school, goals and planning for the rest of the year, relative success rates for the observed classes, contacts with other school personnel, and the teacher's reflections on the school year. In addition, teachers were asked to describe memorable behavioral problems and what was done to deal with them. When a systematic reading of the narratives is done, these students will be picked out (if, indeed, they do show up) and the teacher's methods of dealing with them will be analyzed. In general, these interviews provided information about the teacher's expectations for and assessment of their organizational systems, instructional planning, and specific students. All interviews were done at the teachers' convenience, usually in their classrooms, either during their off-period or after school. Observers interviewed the teachers they had regularly observed. All interviews were tape-recorded and later transcribed verbatim. These interviews will be analyzed and content-coded at a later time.

It should be noted that observers were trained for the interviews in a session with COET staff members and with a member of the CBAM Project staff whose specialty is conducting interviews. Ideas for putting the teachers at ease, conducting the interview and giving some feedback to the teachers were discussed. It was felt that the observers would be best able to conduct the interviews with the teachers as a result of their year-long relationship. Observers also were more familiar with the functioning of the classrooms and were able to probe for specific answers with the context of the classroom in mind. Observers were instructed to give feedback only when they were able to make accurate positive statements and teachers were told that they would be receiving more information at a later time.

Questionnaire. A four-part questionnaire was given to the teachers to be filled out at the end of the school year. Questions in the first two parts dealt with items such as materials, grading, instructional emphases and techniques, teacher-student relationships, etc. On most of these questions teachers were asked if they used these materials or techniques and how frequently.

The third part of the questionnaire was a Teacher Concerns Checklist developed by the PAEI/CBAM staff at the R&D Center (George, Note 5). This checklist provided information about teachers' concerns about their role as a teacher.

The fourth part of the questionnaire was an Educational Opinion Survey based on a questionnaire developed by Wehling and Charters (1969) on teacher beliefs about the teaching process.

Teachers were also asked to fill out a biographical information sheet and describe the effect of the observer on their classes.

Feedback to Teachers

In early August, following the study, the 51 participating teachers were sent a packet of feedback materials. The packet consisted of a letter thanking the teachers for participating in the study, the percentages of answers to the items on the Student Rating of Teachers done by their two classes, the achievement scores for their two classes and study means, summary information on the teacher questionnaire, a list of concepts and terms used in the study, and preliminary results from the study.

Data Analyses

This section summarizes data analysis procedures already completed, in progress, or proposed. Where results of data analyses are known, they are briefly described and summarized. More extensive discussion of the results, along with appropriate tables, will be available in separate report form in the COET report series.

The data gathered in the Junior High Classroom Organization Study consist of the following:

1. Written narrative records (specimen records) of two classes for each of 25 English and 26 mathematics teachers. All teachers were observed in one class on the first day of school, and on a total of approximately 10-12 occasions during the first three weeks. For the remainder of the year, each teacher was observed every three to four weeks on two occasions, once in each class.

2. Component ratings. A set of 44 scales was used after each observation to rate a variety of instructional and managerial behaviors.

3. Student Engagement Ratings. These assess time-on-task during each observation.

4. Time logs. Records of the use of time in various activities and groupings.

5. Achievement and attitude measures. Specially constructed achievement tests were administered in each content area in May. Student Ratings of the Teacher (SRT) were also administered in May in each class. Entering achievement scores were estimated by the California Achievement Test (CAT), administered the previous spring and made available to the project by the school district.

6. Summary ratings and checklists. At the end of the year, observers rated or classified teachers on a variety of variables.

7. Teacher questionnaire. Each teacher completed an extensive questionnaire consisting of measures of attitudes, beliefs, concerns, and perceptions.

8. Teacher interviews. Each teacher was interviewed in May, and a verbatim transcript of the interview was produced. The interview focused on organization, management, planning, and related areas.

Preliminary Analyses

A series of analyses were conducted to determine the reliability of many of the observational measures. In addition, several of the variable sets were factored in order to determine dimensionality and to select variables for grouping to form scales. These analyses were undertaken preparatory to analyses addressing substantive questions, in order to ascertain the quality of the data, and to reduce the data sets to manageable sizes.

Between-observer agreement was verified by comparing Component Ratings and Student Engagement Ratings of observer pairs during twenty-three reliability checks during the year. Using the intra-class corre-

lation statistic to estimate observer agreement, moderate to high values were obtained for nearly all scales (see Tables 1 and 2). Within-teacher stability was estimated using measures obtained in different periods for the same teacher. Most of the Component Ratings and Student Engagement Ratings exhibited at least moderate stability (see Table 3).

The reliability of the achievement and attitude measures was determined using the coefficient measure of internal consistency. Both the pilot testing and the study data indicated high reliability of these measures.

Residual achievement scores were calculated for each class, using the CAT class mean as the covariate. After partialing out the entering achievement levels, the residual achievement gain showed significant stability within teachers (between periods), indicating consistency in teacher effects from class to class. Student attitudes also exhibited consistency from class to class, within teachers, indicating that the student ratings of a given teacher were stable from one period to another. The results were similar in math and English classes and are reported in Table 4. Correlations between the SRT and achievement scores, and between SRT and residual achievement were negligible. The intercorrelation among the achievement test, the SRT, CAT, and residual achievement, measures of on-task behavior and inappropriate and disruptive student behavior are listed in Table 5. These intercorrelations were computed for both math and English for the beginning, as well as the end, of the school year.

At least two patterns emerged. All management variables were significantly related to residual achievement in math after the first three weeks of school. This pattern did not appear in English classes,

although the correlations were in the same predicted direction. In English classes, management variables were significantly related to the student attitude measures. These relationships appeared for the first three weeks of school, as well as the rest of the year in English classes.

Analysis of Teacher Questionnaire

The part of the teacher questionnaire data assessing beliefs and attitudes was factor analyzed and rotated to fit an a priori structure. A poor fit resulted, so an exploratory factor analysis was performed. Ultimately, four scales were created to summarize this set of data.

The narrative records were being summarized according to an activity analysis based upon Doyle's work. In addition, several narrative summary ratings were developed for use by readers to condense information present in sets of narratives.

Selection of a Subset of More and Less Effective Managers

Selection of subsets of more and less effective math and English teachers was made using multiple criteria. The criteria included adjusted pupil achievement means; SRT means; a management score derived from an observer end-of-year assessment; average percentage of adjusted pupil achievement means; SRT means; a management score derived from an observer end-of-year assessment; average percentage of unsanctioned, off-task behavior; and the percentage of time in academic tasks during the October to May observation period.

In order to avoid selection bias (e.g., confounding of initial ability or achievement levels with designation as a more or less effective manager), classes were grouped according to entering CAT means, and subsamples of more and less effective managers were selected within high,

middle, and low initial CAT levels. In English, seven more effective and seven less effective managers were identified; in mathematics, six more effective and six less effective managers were identified.

Data Analyses Directed at Substantive Questions

1. Relationships among the various sets of variables. A set of related questions is whether and to what extent the various sets of variables are related. For example, are the teacher behavior variables, such as the Component Ratings, correlated with student process or product variables, such as the engagement rates or residual achievement? Data analyses undertaken to answer these and other related questions used correlation and multiple regression methodology. Other analyses which compare different times of the year, and different sets of variables are also being undertaken.

2. Identification of beginning-of-year dimensions of effective classroom management. Several analyses were directed at this concern. The subsamples of more and less effective managers were compared using data collected during the first three weeks of the year, including narrative records, component ratings, and student engagement rates. Numerical data were analyzed via t-tests and ANOVA, with case studies based upon narratives used to illustrate basic principles.

3. Effects of entering student achievement level on teacher behaviors, activities, and management strategies. It is well-known that low-ability classes are perceived as more difficult to teach. Their effects on the teacher's choice of activities, organization, and behavior, and the consequences for student engagement, classroom processes, and student outcomes are important to identify. Teachers (seven English and six math) with two contrasting classes, an average-

ability class and a low-ability class, were identified in the sample. Data analyses consisted of statistical comparisons of observed behavior variables in the two types of classes, along with analyses of their activity structures, based upon the narrative records from the first three weeks and the rest of the year.

4. Effects of high heterogeneity within classes. Another important context is the influence of variation in students' entering achievement on classroom organization and management. Classes with more diversity of student achievement/ability would appear to place greater demands on the teacher's planning, range of activities, monitoring, and individual contacts. Data analyses were conducted on a subset of 20 English and 27 math classes identified as having mean entering CAT in the 33rd to 66th percentile (exclusion of low and high classes avoided confounding entering average achievement with homogeneity-heterogeneity). Relationships between teacher management behaviors, student behaviors and outcomes, and the amount of within-class variation in students' entering achievement were examined through correlation and multiple regression techniques. The narrative records of extremely heterogeneous classes which appeared to be effectively taught (in terms of achievement gains, student attitudes, and classroom management criteria) were analyzed. Analyses focused on the teaching and management strategies these teachers used to cope with a high degree of variation in student entering achievement.

5. Relationships among teacher presage variables and management characteristics. An extensive questionnaire was administered, assessing teacher beliefs, concerns, attitudes, and perceptions thought to be relevant for their management styles. To determine whether these teacher characteristics were related to classroom processes and outcomes, presage

variables derived from the questionnaire were correlated with classroom behavior variables and pupil outcome measures obtained from each teacher's classes. In addition, the interviews with the teachers in the subsamples of more and less effective teachers were content coded. This analysis sought to identify differences in planning activities, perceptions of management and organization activities and their importance, and the teacher's decision-making styles.

Reference Notes

1. Evertson, C., Anderson, L., Emmer, E., and Clements, B. The Elementary School Classroom Organization Study: Methodology and Instrumentation (R&D Rep. No. 6002). Austin: The Research and Development Center for Teacher Education, The University of Texas at Austin, 1980.
2. Evertson, C., Emmer, E., & Clements, B. Junior High Classroom Organization Study: Methodology and Instrumentation (R&D Rep. No. 6100). Austin: The Research and Development Center for Teacher Education, The University of Texas at Austin, 1980.
3. Evertson, C., Emmer, E., & Clements, B. Junior High Classroom Organization Study: Observer Training Manual (R&D Rep. No. 6102). Austin: The Research and Development Center for Teacher Education, The University of Texas at Austin, 1980.
4. Stallings, J., Needels, M., and Stayrook, N. How to change the process of teaching basic reading skills in secondary schools. Menlo Park, California: Stanford Research Institute International, 1979.
5. George, A. Measuring self, task, and impact concerns: A manual for use of the teacher concerns questionnaire (R&D Rep. No. 3067). Austin: The Research and Development Center for Teacher Education, The University of Texas at Austin, 1978.

Reference

Wehling, L. and Charters, W. W., Jr. Dimensions of teacher beliefs about the teaching process. American Educational Research Journal, 1969, 6, 7-130.

Table 1

Between-observer Agreement of Component Ratings

for Single Observations

Variable Number	Component Rating Variable	ρ	$p \leq$
01	Teacher describes objectives clearly	.54	.003
02	Teacher considers attention spans	.73	.001
03	Teacher provides assignments for different students	.68	.001
04	Occurrence of verbal class participation	.55	.003
05	Teacher uses a variety of materials	.44	.012
06	Materials are ready and in sufficient quantity	.35	.041
07	Materials effectively support instruction	.46	.010
08	Teacher gives clear directions for use of materials	.64	.001
09	Teacher has distracting mannerisms	.65	.001
10	Teacher maintains eye contact with students	.61	.001
11	Teacher's presentation of materials is clear	.41	.039
12	Teacher's presentation is adapted to different ability levels	.56	.004
13	Teacher provides and/or seeks rationale and analysis	.57	.003
14	Teacher states desired attitudes	.10	.103
15	High degree of pupil success	.46	.009
16	Content is related to pupil interest and background	.67	.001

Table 1-continued

Variable Number	Component Rating Variable	ρ	$p \leq$
17	Teacher provides reasonable work standards	.26	.104
18	Amount of positive reinforcement	.38	.029
19	Teacher signals appropriate behavior	.48	.007
20	Teacher reinforces inattentive behavior	.26	.101
21	Teacher displays consistency in dealing with behavior	.39	.024
22	Amount of disruptive behavior	.22	.141
23	Source of disruptive behavior	0	-
24	Teacher stops disruptive behavior quickly	0	-
25	Teacher gives rules or procedures to stop disruptive behavior	0	-
26	Teacher criticizes or justifies authority to stop disruptive behavior	0	-
27	Teacher punishes to stop disruptive behavior	0	-
28	Teacher ignores disruptive behavior	0	-
29	Teacher has a conference to stop disruptive behavior	0	-
30	Teacher displays listening skills	.31	.081
31	Teacher expresses feelings	.30	.069
32	Teacher is receptive to student input	.41	.019
33	Teacher is oriented to student needs	.23	.129
34	Teacher nurtures student affective skills	.56	.002
35	Class has task-oriented focus	.65	.001

Table 1-continued

Variable Number	Component Rating Variable	ρ	$p \leq$
36	Teacher encourages group cohesiveness	.74	.001
37	Amount of inappropriate behavior	.71	.001
38	Teacher stops inappropriate behavior quickly	.29	.092
39	Teacher gives rules or procedures to stop inappropriate behavior	0	-
40	Teacher criticizes or justifies authority to stop inappropriate behavior	.28	.089
41	Teacher punishes to stop inappropriate behavior	.57	.002
42	Teacher ignores inappropriate behavior	.55	.003
43	Teacher has conference to stop inappropriate behavior	.29	.073
44	Teacher signals desistance of inappropriate behavior	.05	.408

Note: Data are from observer pairs in 23 observations. The intraclass correlation estimates the proportion of individual observer variance that is reliable. The unreliability of Variables 22 through 29 appears to be attributable to the low variance of those measures during the reliability observations.

Table 2

Between-observer Agreement of Student Engagement Rating Categories for Single Observations

Category	ρ	$p <$
Definitely on task, academic	.71	.001
Probably on-task, academic	0	-
Definitely on task, procedural	.67	.001
Probably on task, procedural	.65	.001
Off task, sanctioned	.78	.001
Off task, unsanctioned	.74	.001
Dead time	0	-
On task, academic	.71	.001
On task, procedural	.68	.001
On task, total	.78	.001

Note: Data are from observer pairs in 23 observations. The intraclass correlation coefficient ρ, estimates the proportion of individual observer variance that is reliable. The unreliability of Dead time appears to have been caused by its very low occurrence during the reliability observations.

Table 3

Between-period Stability of Component Ratings

During the First Three Weeks

Variable Number	Variable Description	English (50 classes)	Math (52 Classes)
01	Teacher describes objectives clearly	.60*	.44*
02	Teacher considers attention spans	.57*	.59*
03	Teacher provides assignments for different students	.49*	.84*
04	Occurrence of verbal class participation	0	.59*
05	Teacher uses a variety of materials	.16	.68*
06	Materials are ready and in sufficient quantity	.49*	.34*
07	Materials effectively support instruction	.77*	.67*
08	Teacher gives clear directions for use of materials	.66*	.62*
09	Teacher has distracting mannerisms	.82*	.38*
10	Teacher maintains eye contact with students	.69*	.63*
11	Teacher's presentation of materials is clear	.66*	.57*
12	Teacher's presentation is adapted to different ability levels	.56*	.50*
13	Teacher provides and/or seeks rationale and analysis	.58*	.61*
14	Teacher states desired attitudes	.77*	.72*
15	High degree of pupil success	.49*	.55*
16	Content is related to pupil interest and background	.44*	.67*

Table 3-continued

Variable Number	Variable Description	English (50 classes)	Math (52 Classes)
17	Teacher provides reasonable work standards	.60*	.64*
18	Amount of positive reinforcement	.58*	.70*
19	Teacher signals appropriate behavior	.50*	.43*
20	Teacher reinforces inattentive behavior	.73*	.15
21	Teacher displays consistency in dealing with behavior	.79*	.48*
22	Amount of disruptive behavior	.67*	.30
23	Source of disruptive behavior	.56*	.37*
24	Teacher stops disruptive behavior quickly	.52*	.50*
25	Teacher gives rules or procedures to stop disruptive behavior	.43*	.12
26	Teacher criticizes or justifies authority to stop disruptive behavior	.59*	.60*
27	Teacher punishes to stop disruptive behavior	.60*	.85*
28	Teacher ignores disruptive behavior	.39*	.84*
29	Teacher has a conference to stop disruptive behavior	.29	00
30	Teacher displays listening skills	.52*	.69*
31	Teacher expresses feelings	.60*	.65*
32	Teacher is receptive to student input	.43*	.37*
33	Teacher is oriented to student needs	.48*	.43*
34	Teacher nurtures student affective skills	.31	.52*
35	Class has task-oriented focus	.49*	.62*

Table 3-continued

Variable Number	Variable Description	English (50 classes)	Math (52 Classes)
36	Teacher encourages group cohesiveness	.53*	.54*
37	Amount of inappropriate behavior	.38	.14
38	Teacher stops inappropriate behavior quickly	.40	.28
39	Teacher gives rules or procedures to stop inappropriate behavior	.11	.21
40	Teacher criticizes or justifies authority to stop inappropriate behavior	.70*	.22
41	Teacher punishes to stop inappropriate behavior	.85*	.28
42	Teacher ignores inappropriate behavior	.59*	.59*
43	Teacher has conference to stop inappropriate behavior	00	.03
44	Teacher signals desistance of inappropriate behavior	.30	.07

*$p < .05$.

Note: Coefficients of correlation reported in this table are intraclass correlations, which provide an estimate of the proportion of total variance that is stable between periods (within teacher). Variables 37 through 44 were added to the set of ratings after the second week of observation, so the stabilities reported for these variables may be affected by small numbers of observations. In a few classes, no observations were made on Variables 37-44.

Table 4

The Consistency Between Periods (Within Teacher)

of Class Mean Residual Achievement and Attitude Scores

	ρ_1	ρ_2	$p \leq$
Math teachers (n = 26)			
Class mean residual achievement	.49	.66	.01
Class mean Student Rating of Teacher	.62	.76	.001
English teachers (n = 25)			
Class mean residual achievement	.48	.65	.01
Class mean Student Rating of Teacher	.64	.78	.001

Note: Data were obtained for each teacher in two classes. (ρ_1) Intraclass correlations estimate the consistency of each variable when the estimate is based upon one class (ρ_1) or the average of two classes (ρ_2).

Table 5

Math Intercorrelation Matrices for First Three Weeks

(N = 52)

Variable	Residual	SRT	CAT78	ACH
1. Off-task, Unsanctioned	-.11	.01	-.38[a]	-.39
2. On-task, Academic	.06	.25	-.03	-.02
3. On-task	.19	.18	.23	.27
4. Disruptive behavior	-.23	-.00	-.29	-.34
5. Inappropriate behavior	-.19	.07	-.15	-.20
6. Residual	--	.24	-.01	.27
7. SRT		--	-.09	-.01
8. CAT78			--	.96
9. ACH				--

Math Intercorrelation Matrices for Rest of Year

(N = 52)

Variable	Residual	SRT	CAT78	ACH
1. Off-task, Unsanctioned	-.37	-.01	-.23	-.33
2. On-task, Academic	.28	.20	.27	.34
3. On-task	.32	.15	.31	.39
4. Disruptive behavior	-.30	.05	-.21	-.29
5. Inappropriate behavior	-.30	.09	-.17	-.24
6. Residual	--	.24	-.01	.27
7. SRT		--	-.09	-.01
8. CAT78			--	.96
9. ACH				--

Table 5-continued

English Intercorrelation Matrices for First Three Weeks

(N = 50)

Variable	Residual	SRT	CAT78	ACH
1. Off-task, Unsanctioned	.13	-.32	-.37	-.33
2. On-task, Academic	.18	.12	.29	.32
3. On-task	.02	.21	.40	.39
4. Disruptive behavior	-.17	-.37	-.36	-.39
5. Inappropriate behavior	-.13	-.43	-.26	-.28
6. Residual	--	-.13	.05	.29
7. SRT		--	-.12	-.14
8. CAT78			--	.97
9. ACH				--

English Intercorrelation Matrices for Rest of Year

(N = 50)

Variable	Residual	SRT	CAT78	ACH
1. Off-task, Unsanctioned	-.18	-.46	-.10	-.14
2. On-task, Academic	.14	-.02	.32	.34
3. On-task	.19	.28	.25	.29
4. Disruptive behavior	-.09	-.40	-.23	-.24
5. Inappropriate behavior	-.23	-.43	-.26	-.30
6. Residual	--	-.13	.05	.29
7. SRT		--	-.12	-.14
8. CAT78			--	.97
9. ACH				--

[a] $p \leq .05$ is indicated by an underline.
$p \leq .01$ in indicated by two underlines.

APPENDIX A

TIME LINE FOR
THE JUNIOR HIGH CLASSROOM ORGANIZATION STUDY

Spring, 1978	Contact made with principals of 9 of the 11 Austin junior high schools. Meetings were held with the English and math faculty members to discuss the project and secure volunteers.
Mid-August, 1978	Two other junior high principals contacted and faculties met with to obtain volunteers.
August 21-25, 1978	Observer Training at the R&D Center, lasting about 25 hours over a five-day period.
August 28, 1978	First day of school. Eighteen observers in one class each of 53 teachers (25 English and 26 math) in 11 junior high schools.
August 28, 1978- September 15, 1978	First three weeks of school. Fifty-three teachers, two classes each, seen by 19 observers for a total of over 575 observation hours, or approximately 11 observations per teacher.
September 25, 1978- May 1, 1979	Fifty-one teachers, two classes each, seen approximately every three weeks by one of five regular observers for a total of over 850 observation hours or approximately 17 observations per teacher.
April 9-27, 1979	Students in observed classes given the Student Rating of Teacher form to fill out during the last regularly scheduled observation of the class.
May 1-18, 1979	Students in observed classes given the COET-developed curriculum-based achievement tests in English and math.
May, 1979	Teachers were interviewed and they filled out a questionnaire concerning organization and management techniques, planning and beliefs about the task of teaching.

APPENDIX B

HCOS

NARRATIVE

Teacher #_____ School #_____ Subject #_____ Period #_____ Observer #_____

Date _____ # Students Present _____ Page_____of_____

START:

BEG	END	ST.ENG	
			1.
			2.
			3.
			4.
			5.
			6.
			7.
			8.
			9.
			10.
			11.
			12.
			13.
			14.
			15.
			16.
			17.
			18.
			19.
			20.
			21.
			22.
			23.
			24.
			25.

STOP:

HCOS

Student Engagement Ratings

Teacher #_____ School #_____ Subject #_____ Period #_____ Observer #_____

Date _____ Number of Students _____

	1	2	3	4
Time				
Format/Code				
Topic				
# in Room				
# def. on, acad.				
# prob. on, acad.				
# def. on, proc.				
# prob. on, proc.				
# off, sanc.				
# off, unsanc.				
# dead time				
# can't see				

ACOS

COMPONENT RATINGS

Teacher # ____ School # ____ Subject # ____ Period # ____ Observer # ____

Date _____ Code _____ # of Students Present ____

1. Lesson Design

5 4 3 2 1 a. Describes objectives clearly

5 4 3 2 1 b. Attention spans considered

5 4 3 2 1 c. Assignments for different students

5 4 3 2 1 d. Occurrence of verbal class participation

2. Locating, Constructing, Using Materials

5 4 3 2 1 a. Uses a variety of materials

5 4 3 2 1 b. Materials ready

5 4 3 2 1 c. Materials effectively support instructions

5 4 3 2 1 d. Clear directions

3. Presenting Information

5 4 3 2 1 a. Distracting mannerisms

5 4 3 2 1 b. Eye contact

5 4 3 2 1 c. Presentation clear

5 4 3 2 1 d. Adapted to different levels

5 4 3 2 1 e. Provides/seeks rationale and analysis

4. Developing Attitudes

5 4 3 2 1 a. States desired attitudes

5 4 3 2 1 b. High degree of pupil success

5 4 3 2 1 c. Content related to pupil interest/background

5 4 3 2 1 d. Reasonable work standards

5. Managing Pupil Behavior

5 4 3 2 1 a. Amount of positive reinforcement

5 4 3 2 1 b. Signals appropriate behavior

5 4 3 2 1 c. Reinforces inatt[illegible] behavior

5. Managing Pupil Bhvr. (Cont.)

5 4 3 2 1 d. Consistency in dealing with behavior

5 4 3 2 1 e. Amount of disruptive behavior

5 4 3 2 1 f. Source of disruptive behavior

6. Methods of Handling Disruptive Behavior

5 4 3 2 1 a. Stops quickly

5 4 3 2 1 b. Gives rules and procedures

5 4 3 2 1 c. Criticizes/justifies authority

5 4 3 2 1 d. Punishes

5 4 3 2 1 e. Ignores

____ f. Conference

7. Interacting Effectively

5 4 3 2 1 a. Listening skills

5 4 3 2 1 b. Expresses feelings

5 4 3 2 1 c. Receptive to student input

5 4 3 2 1 d. Oriented to student needs

5 4 3 2 1 e. Nurturance of affective skills

8. Classroom Climates

5 4 3 2 1 a. Task-oriented focus

5 4 3 2 1 b. Teacher encourages group cohesiveness

5 4 3 2 1 9. Amount of inappropriate behavior

10. Teacher's reaction to inappropriate behavior

5 4 3 2 1 a. Inappropriate behavior is stopped quickly

5 4 3 2 1 b. Gives rules or procedures

5 4 3 2 1 c. Criticizes/justifies authority

5 4 3 2 1 d. Punishes

5 4 3 2 1 e. Ignores

____ f. Conference

5 4 3 2 1 g. Desist

JHCOS

E LOG

Teacher #____ School #____ Subject #____ Period #____ Observer #____ Date_____ # in class____ Page___of___

Start	Stop	#	Subject/activity	Start	Stop	#	Subject/activity	Start	Stop	#	Subject/Activity

48

55

57